



## PROGRESS REPORT NO. 14

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(R10) - via Email  
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**CC:** David Godlewski – TCAI (via Email)  
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David Charters – EPA, Headquarters (via Email)  
Lucinda Jacobs – TCAI Technical Team (via Email)

**DATE:** September 10, 2007

**FILE NO:** 1-773180-000

**RE:** Upper Columbia River (UCR) Remedial Investigation/Feasibility Study  
(RI/FS) - Progress Report No. 14 Month Ending August 2007

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Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of the activities completed during the past month in compliance with the aforementioned Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Following the submittal of TCAI's preliminary response to comments on the draft RI/FS work plan on July 31, 2007, an on-line meeting (i.e., GoToMeeting®) was hosted and conducted on August 9, 2007 by TCAI. The purpose of the meeting was two-fold. The first was for TCAI and its Technical Team to outline and present for EPA and participating parties<sup>1</sup> the initial study design, rationale and sequencing of activities; while the second half was dedicated to address "comment issues"<sup>2</sup> associated with the aforementioned preliminary response to comments. Copies of the PowerPoint

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<sup>1</sup> As outlined within the June 2, 2006 Settlement Agreement participating parties include the U.S. Department of the Interior, State of Washington Department of Ecology, Spokane Tribe of Indians, and the Confederated Tribes of the Colville Reservation. In addition, an invitation was extended to the Government of Canada.

<sup>2</sup> On August 8, 2007 EPA provided a list of "comment issues" associated with TCAI's preliminary response to comments on the draft RI/FS work plan. Items identified on the list included: 1) smelter plume modeling; 2) contaminants of concern determination; 3) information included in the baseline ecological risk assessment work plan; 4) comment tracking within future documents; 5) Canadian studies; 6) updates on conceptual site models; 7) sampling permits; 8) use of the Biotic Ligand Model; 9) and addressing comments/suggestions submitted by participating parties on draft reports/memoranda prepared by the EPA.



presentation made by TCAI and its Technical Team, and the attendee list<sup>3</sup> have been posted on the secure domain of the project website (<https://www.ucr-rifs.com>).

Presentation topics reviewed and discussed during the August 9<sup>th</sup> GoToMeeting® included a general overview of proposed study sequencing, study design process (i.e., mechanisms for early review), study design rationale, and scheduling<sup>4</sup>. During the on-line meeting, TCAI and its Technical Team outlined the adaptive management process to be employed during the RI/FS. In other words, as site-specific information is collected and a better understanding of site conditions (e.g., nature and extent of contamination) is gained, this information will be used to refine the problem formulation (e.g., conceptual site models), identify potential data gaps, and concomitantly guide future sampling activities. In addition, TCAI and its Technical Team proposed and outlined an on-line method (i.e., GoToMeeting®) to facilitate early review of sampling and analysis plans (SAPs) with the overall goal of improving document review efficiencies. As outlined during the meeting, prior to preparing a draft SAP, TCAI and its Technical Team will present a “straw man” of the respective SAP. Components of the “straw man” will include the following:

- Data quality objectives (DQOs)<sup>5</sup>;
- Proposed target analytes and parameters to be measured and rationale; and
- Proposed general sampling locations and rationale.

Anticipated 2007/2008 sampling programs discussed during the aforementioned meeting included: surface water sampling, sediment sampling, beach sediment sampling, floodplain soils sampling, fish tissue sampling, and tribal and recreational use surveys just to name a few. As previously noted, a complete copy of the presentation materials has been posted on the secure domain of the project website.

Following the presentation, comment issues submitted by EPA on August 8, 2007 were reviewed. The following is intended to provide a summary of those discussions.

Item No. 1: “Smelter Plume Modeling - Modeling/mapping of pre-dam thalweg and floodplains. EPA suggested that smelter plume mapping and flow modeling be performed in order to provide information for sample locations. How does TCAI intend to “best” place samples without this information?”

TCAI noted that since the April 2007 workshop, soil data as collected by the EPA has been identified and can be used in conjunction with soil data collected as part of the Trail Ecological Risk Assessment in assessing the upland footprint as defined within

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<sup>3</sup> It should be noted that the attendee list does not reflect the actual participants. Rather, it only records the users who logged into the on-line meeting. There may be a number of attendees viewing and participating in the on-line meeting from the same computer.

<sup>4</sup> Although the presentation discussed the overall anticipated project schedule, its primary focus was placed on activities (studies) to be completed through 2008, demonstrating the dependencies for future studies.

<sup>5</sup> It is important to note that prior to the development of DQOs an understanding and interpretation of existing data must be completed (i.e., data gap evaluation). As such, although not implicitly called out within the above-listed “straw man” components, a prerequisite of DQO development is data gap evaluation.

the Agreement. Based on this initial analysis which will be presented within the Baseline Ecological Risk Assessment (BERA) work plan, a decision will be made regarding the need for additional soil sampling or air modeling. TCAI confirmed that a combination of techniques (e.g., historical aerial photographs, flood insurance maps, and the preliminary hydrodynamic analyses outlined within the draft RI/FS work plan) will be used to assess floodplains within the riverine portion of the Site<sup>6</sup>. Regarding the need for hydrodynamic modeling/mapping of the pre-dam thalweg, TCAI pointed out that the 1949 bathymetric data already maps the pre-dam thalweg and is not necessary; while existing sediment data (i.e., bulk chemistry and grain size distribution information) can be used to guide future sampling locations. Therefore and at this time, there does not appear to be a need to conduct any hydrodynamic modeling.

Item No. 2: "Contaminants of concern determination - In order to determine COCs, TCAI will need to provide information on discharges and amounts. Will this information be available in the Work Plan? How will COCs be determined?"

TCAI disagreed that a loading analysis is needed to identify chemicals of interest. Rather, chemicals of interest can be determined based on information from previous studies conducted in Canada (e.g., the Trail ERA), information generally applicable to sources to the UCR, effluent constituents identified in permitted discharges for the Trail facility and information on the processes and operations at the Trail facility. TCAI confirmed that non-confidential business information submitted to EPA under separate cover in May 2007 (see Table 1 below) would be incorporated into the revised RI/FS work plan.

Item No. 3: "Information to be provided in the BERA Work Plan - The RI data is used for determining nature and extent of contamination, human health risk, and eco risk (as well as for remedy determination). EPA wants to ensure that the Work Plan provides sufficient information for assessing sampling plan needs, and that sampling plans may be written prior to the BERA Work Plan."

During the presentation in the preceding on-line meeting (GoToMeeting®) TCAI illustrated that per EPA Guidance, an adaptive management process will be used during the RI/FS; and that TCAI is committed to a robust field sampling effort initiated in 2007/2008. TCAI demonstrated that the data gaps analysis in the RI/FS work plan supports initiation of several sampling efforts (e.g., surface water, beach sediment, and floodplain soils) prior to the BERA work plan. In addition, TCAI confirmed that if any BERA work plan analyses that are directly related to 2008 field efforts will also be included in the appropriate SAP so as to facilitate field sampling efforts. In response to a request from Kevin Rochlin on the sequencing of study components, soil sampling was moved from an "additional information need" (following the BERA work plan) to a "data gap" (following the RI/FS work plan).

Item No. 4: "Issue/Comment Tracking - EPA would like to know TCAI's ideas for tracking comments as different items will be provided in subsequent documents. EPA

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<sup>6</sup> It was discussed that any historic floodplains that may have existed in the footprint of the reservoir (i.e., Lake Roosevelt) are now submerged and as such, would be captured by future sediment sampling programs.

would like to see future deliverables with line numbered pages, and have comments submitted with locations provided to expedite document review.”

TCAI confirmed that any comments that have been deferred to subsequent documents will be tracked and provided as an appendix within the appropriate document/report (e.g., BERA work plan or SAP). TCAI also confirmed that to the best of their ability, the appropriate section where the comment was first addressed will be identified. To facilitate easy review TCAI confirmed that all future technical deliverables (e.g., work plans, SAPs, etc.) will be line numbered to facilitate review and comment.

Item No. 5: “Information from Canadian Studies - It is important as appropriate to reference information obtained in Canada to further the understanding of the system.”

TCAI confirmed that results of the Trail facility ecological risk assessment and other relevant publicly available data from Canada will be used to further the understanding of the system.

Item No. 6: “CSM Updates - How will the CSM be updated as the project proceeds?”

This item was discussed during the preceding on-line meeting (GoToMeeting®) and did not warrant further discussion.

Item No. 7: “Permits for Sampling - TCAI will require permits from DOI and the Tribes prior to sampling.”

TCAI confirmed that the necessary permits to conduct all sampling will be obtained from the Department of Interior (DOI) and the tribes; and that they are in the process of developing an access agreement with DOI which will serve as a template for a similar agreement with the tribes.

Item No. 8: “Use of Biotic Ligand Model - The use of the BLM must take into consideration whether it is sensitive enough for chronic exposure and whether the parameters of this system are within the BLM “range”. The appropriateness of its use will need to be determined.”

TCAI agrees and confirmed that with any model proposed, its limitations and strengths for use at the UCR Site will need to be assessed and documented in a technical memorandum as per the Agreement.

Item No. 9: “What is TCAI plan for addressing the additional data evaluation requirements provided by EPA? The comment responses do not address this issue.”

TCAI confirmed that comments on EPA’s data reports/technical memoranda as provided by the participating parties will be considered as these evaluations are conducted and in the generation of the BERA work plan and respective SAPs. TCAI reminded EPA that further to previous discussions, these comments would not be addressed in the revised RI/FS work plan.

In addition to the above-listed items, it was pointed out that in the preliminary response to comment (i.e., Round 1, Comment 10) “no official agreements” were made at the April 2007 workshop. TCAI agreed that no official agreements were made and that language within the preliminary response to comments would be changed for the final response to

comments to be submitted as part of the revised RI/FS work plan. At the time of the meeting, no additional discussions on "Category 5" comments were requested<sup>7</sup>.

A letter requesting revisions to the draft RI/FS work plan was electronically received by TCAI on August 22, 2007. As a result and pursuant to Paragraph 9 of Section IV of the Agreement, revisions to the RI/FS work plan are being prepared in response to comments received from EPA and participating parties, and will be consistent with preliminary responses<sup>8</sup> submitted to EPA on July 31, 2007. It is anticipated that the revised work plan will be submitted to respective project managers no later than September 21, 2007 with subsequent copies delivered within 14 calendar days to all technical reviewers<sup>9</sup>.

To accommodate the anticipated schedule outlined during the August 9, 2007 GoToMeeting® it is anticipated that several on-line meetings will be needed in the near future. Specifically, TCAI has proposed that prior to September 21, 2007 on-line meetings are conducted to present and discuss: 1) methods and results of the screening level ecological risk assessment (SLERA); and, 2) the surface water "straw man". It is anticipated that draft copies of the SLERA and surface water SAP will be submitted for review and approval in October 2007. In addition to the aforementioned on-line meetings, TCAI has also suggested that should a meeting be required and requested by EPA to review and discuss the revised RI/FS work plan, it be scheduled during the week of October 8, 2007. TCAI would also like to schedule an on-line meeting in November 2007 to present and discuss the beach sediment and floodplain soil sampling "straw man" proposal. At the time of writing, no dates have been confirmed however.

A summary of activities (e.g., deliverables) completed to date, and those anticipated within in the near future, are presented within Table 1 below.

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<sup>7</sup> "Category 5" comments were identified and categorized by TCAI and its Technical Team to identify those comments in which TCAI either disagreed with EPA, or required and requested additional clarification from EPA (i.e., the reviewer). At the time of writing this progress report, no additional concerns associated with "Category 5" comments have been identified by EPA and as such, TCAI presumes that there are no substantive disagreements with TCAI's responses. Therefore the RI/FS work plan is being revised consistent with the preliminary responses to comments.

<sup>8</sup> As noted at the time of submission, responses to comments were written in future tense. For the final response to comments, which will be included within the revised RI/FS work plan, the attached comments will be checked for grammar and tense.

<sup>9</sup> As with all technical deliverables submitted to date, the revised RI/FS work plan will be posted on the secure domain of the project website on the due date (i.e., September 21, 2007).

**Table 1. Upper Columbia River Remedial Investigation/Feasibility Study Summary of On-Going and Planned Activities**

Task No.	Task Description	Status	Issues	Estimated Completion Date <sup>1</sup>
1.	2005 Field Data Transfer	Complete	None to report at this time	<u>July 31, 2006</u>
2.	Technical Memorandum <sup>2</sup>	Complete	None to report at this time	<u>October 27, 2006</u>
3.	Draft RI/FS Work Plan	Complete	None to report at this time	<u>December 28, 2006</u>
4.	Sampling and Analysis Plan (SAP) <sup>3</sup>	Complete	None to report at this time	<u>February 26, 2007</u>
5.	Health and Safety Plan	Complete	None to report at this time	<u>February 26, 2007</u>
6.	Cultural Resources Coordination Plan	Complete	None to report at this time	<u>February 26, 2007</u>
7.	Revised RMAO Memorandum <sup>4</sup>	Complete	None to report at this time	<u>March 11, 2007</u>
8.	Additional Trail Data	Complete	None to report at this time	<u>May 6, 2007<sup>5</sup></u>
9.	April Workshop Summary	Complete	None to report at this time	<u>July 12, 2007</u>
10.	Revised Draft RI/FS Work Plan	On-Going	None to report at this time	September 21, 2007
11.	Screening Level ERA	On-Going	None to report at this time	TBD <sup>6</sup>
12.	Surface Water SAP	Temporarily Delayed	None to report at this time	TBD <sup>6</sup>

- Notes:
1. Dates that have been underlined represent the actual day that the respective deliverable was submitted to EPA as per Paragraph 80 of the Agreement.
  2. As outlined within the Agreement, the technical memorandum outlines and described the Risk-Based Remedial Objectives for the Ecological Risk Assessment. Remedial objectives for the protection of human health will be prepared by EPA and submitted under separate cover at a later date.
  3. The SAP submitted in fulfillment of Paragraph 13 of the Agreement was the *2007 Sediment Investigation of Beaches and Depositional Areas*.
  4. The draft technical memorandum on risk-based management action objectives (RMAOs) was revised per EPA's January 16, 2007 comments.
  5. Following a request outlined by EPA in a letter dated February 1, 2007 (received on February 5, 2007) TCAI has compiled additional information on the Trail Facility so as to assist in the identification of contaminants of potential concern (COPCs) as outlined within Paragraph 24 of the Agreement. An electronic version of the deliverable was forwarded to EPA on May 6, 2007 with hard copies delivered shortly thereafter. In addition, a second deliverable identified as "Business Confidential" information was submitted to EPA legal counsel under separate cover on May 7, 2007 by Pillsbury Winthrop Shaw Pittman (i.e., TCAI legal counsel) on behalf of TCAI.
  6. It is anticipated that the screening level ecological risk assessment (SLERA) and surface water sampling and analysis plan (SAP) will be submitted in October 2007 but an exact date for these documents has not yet been determined and may depend on the level of feedback received from EPA following on-line meetings/presentations using GoToMeeting®.
  7. ERA = Ecological Risk Assessment  
SAP = Sampling & Analysis  
TBD = To Be Determined

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-892-2585.